Nova Scotia Environment

Annual Accountability Report for the Fiscal Year 2010-2011

NOVA SCOTIA
Environment

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Accountability Statement

The Accountability Report of Nova Scotia Environment for the year ended March 31, 2011 is prepared pursuant to the *Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against Nova Scotia Environment's Statement of Mandate for the fiscal year 2010-2011. The reporting of the Department's outcomes necessarily includes estimates, judgments and opinions by Nova Scotia Environment management.

We acknowledge that this Accountability Report is the responsibility of Department management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the Nova Scotia Environment's 2010-2011 Statement of Mandate.

Honourable Sterling Belliveau
Minister of Environment

Sara Jane Snook
Deputy Minister of Environment

Message from Minister

I am pleased to provide you with our Accountability Report for the fiscal year 2010-2011. This report measures our success in meeting the goals set out in the 2010-2011 Statement of Mandate.

In 2010-2011, Nova Scotia Environment made great strides towards meeting and even surpassing our goals. This was the first full year of hard caps on greenhouse gas emissions (GHGs) from Nova Scotia Power, and this cap was not only met, it was exceeded. Nova Scotia saw lower GHG emissions in 2010-2011 over the previous year, and we surpassed our target to reduce emissions of nitrogen oxides by 20% by the year 2009 relative to emissions in the year 2000.

We also released the province's water strategy in December 2010, meeting another of our environmental targets. Our Department is also making progress on our goal to legally protect 12% of our lands by 2015.

The ecoNova Scotia program completed its mandate in March 2011. It is estimated that this program created over 400 jobs, and contributed over $15 million in wages to the Nova Scotia economy. The projects and programs supported by ecoNova Scotia will reduce GHGs by an estimated 241,000 tonnes and lower air pollution by 1.2 million kilograms per year by 2020.

In the current fiscal year, Nova Scotia Environment continues to build on our successes and work toward meeting our environmental targets to create a healthy and safe environment for all Nova Scotians.

Sincerely,

Honourable Sterling Belliveau
Minister of Environment

1. Financial Results

Nova Scotia Environment[1]		
Program and Service Area	**2010/11 Estimate ($ thousands)**	**2010/11 Actual ($ thousands)**
Ordinary Revenues, Fees and Recoveries	$5,779	$5,876
TCA Purchase Requirements	$1,500	$1,498
Administration	$1,031	$942
Policy and Corporate Services	$4,373	$4,477
Environmental Monitoring and Compliance	$12,177	$11,452
Environmental Science and Program Management	$33,023	$28,129
Environment and Sustainable Prosperity Partnerships	$651	$809
Climate Change Directorate	$1,522	$1,619
Total Gross Program Expenses	$52,777	$47,428
Funded Staff (FTEs)	278.0	258.0

[1] The Department of Environment spent $5.4 million less than budget. The majority of this variance was due to a timing issue in the ecoNova Scotia program resulting in $4.1 million additional dollars being spent in fiscal 2009-10 and an equal reduction in spending in the 2010-11 fiscal year.

2. Performance Measures

Mandate: *Environment Act* – Clean Air

MEASURE:

Annual total sulphur dioxide (SO_2) air emissions (tonnes) in the province.

Outcome Description:

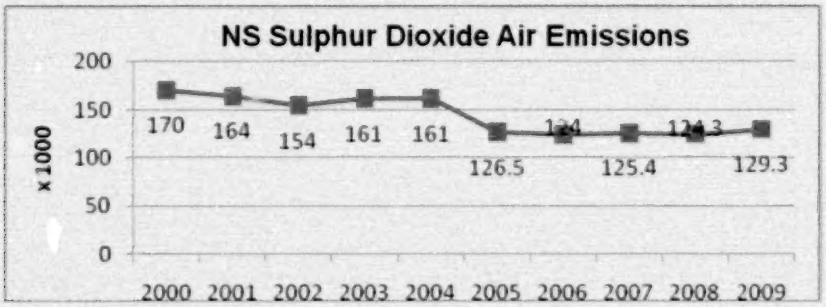
The target is to maintain total provincial SO_2 emissions below the 2005 cap of 141,750 tonnes, and achieve a 25% reduction in SO_2 emissions from 2001 levels, from facilities emitting greater than 90 tonnes per year, by 2010.

What Does This Measure Tell Us?

Sulphur dioxide is a pollutant that contributes to the formation of smog and acid precipitation. Nova Scotia's *Air Quality Regulations* contain a provincial cap on sulphur dioxide emissions.

Where Are We Now?

In 2009, the total provincial emissions were 129,325 tonnes, which is below the 2005 cap. The total in 2009 for facilities emitting greater than 90 tonnes per year was 6,843 tonnes, which is a 48% reduction from 2001 levels. Emission levels, which are tracked through the Natural Pollutant Release Inventory, are not yet available for 2010.



Where Do We Want To Be?

Provincial sulphur dioxide emission caps have been established in the *Air Quality Regulations* for 2015 and 2020. The cap for 2015 is 119,070 tonnes and the cap for 2020 is 70,875 tonnes.

MEASURE:

Annual total sulphur dioxide (SO_2) emitted (tonnes) to the air by Nova Scotia Power Inc. (NSPI).

Outcome Description:

The target is for NSPI to achieve a 50% reduction in SO_2 emissions from their 1995 cap by 2010. To achieve the 50% reduction, the cap for NSPI starting in 2010 is 72,500 tonnes.

What Does This Measure Tell Us?

Sulphur dioxide is a pollutant that contributes to the formation of smog and acid precipitation. In Nova Scotia, most of the sulphur dioxide emissions come from thermal electrical generation. Nova Scotia's *Air Quality Regulations* contain a cap on sulphur dioxide emissions that applies to NSPI.

Where Are We Now?

The cap for NSPI for 2010 is 72,500 tonnes. In 2010, NSPI's emissions were 61,904 tonnes, which is less than the 2010 cap of 72,500 tonnes.

Where Do We Want To Be?

Our target for this measure is to have NSPI continue to meet the targets in the Air Quality Regulations. In addition to the 2010 target, sulphur dioxide emission targets have been set in the regulations for NSPI for 2015 and 2020. The cap for 2015 is 60,900 tonnes and the cap for 2020 is 36,250 tonnes.

MEASURE:

Annual total mercury air emissions (kg) from Nova Scotia Power Inc.'s (NSPI) coal-fired electrical power stations.

Outcome Description:

The target is to maintain the 65 kg emission cap set for 2010 for NSPI's coal-fired electrical power stations.

What Does This Measure Tell Us?

Mercury is a neurotoxin that persists in the environment and accumulates in the food chain. Coal-fired power plants account for the vast majority of mercury emissions in Nova Scotia.

Where Are We Now?

In 2010, NSPI's mercury emissions were 81.5 kg, which is below the amended emissions cap of 110 kg for 2010.

Where Do We Want To Be?

Our target for this measure is for NSPI to continue to meet the mercury emissions caps set out in the *Air Quality Regulations*.

Changes in Measures

In the spring of 2010, NSPI communicated to government that the cost for complying with the 2010 emissions cap would contribute to significant potential electricity rate increases in 2011. As a result, Government announced that it would make amendments to the *Air Quality Regulations* to defer the 65 kg mercury emission cap for NSPI until 2014, allowing time to implement a more cost effective technology solution.

The *Air Quality Regulations* amendments included:

- Changing the date of achievement for the 65 kg cap in the regulations to 2014 from 2010, with annual declining emission caps from 2010 to 2013 (110 kg in 2010, 100 kg in 2011 and 2012, and 85 kg in 2013) and ultimately a 35 kg cap in 2020.
- Requiring NSPI to make up by December 31, 2020 for all annual emissions over 65 kg in the 2010-2013 period.
- Requiring a detailed plan, by March 31, 2011, from NSPI showing how they would meet these requirements.

MEASURE:

Annual total nitrogen oxides (NOx) emitted (tonnes) to the air by Nova Scotia Power Inc. (NSPI).

Outcome Description:

Our target is for NSPI to meet their annual NOx emissions cap for 2009 which is 21,365 tonnes, or 20% less than base year (2000), which is 26,706 tonnes.

What Does This Measure Tell Us?

Nitrogen oxides contribute to the formation of smog and acid precipitation. In Nova Scotia, nitrogen oxide emissions are produced by a variety of sources, including thermal electrical power generation. The nitrogen oxide target in Nova Scotia's *Air Quality Regulations* applies only to NSPI. NSPI's annual NOx emissions cap of 21,365 tonnes took effect in 2009.

Where Are We Now?

In 2009, NSPI emitted 17,075 tonnes of nitrogen oxides. This was 36.1% less than their 2000 emission levels. In 2010, NSPI emitted 18,230 tonnes of nitrogen oxides, which although higher than in 2009 is still below their cap for both 2009 and 2015.

Where Do We Want To Be?

Our target for this measure is to have NSPI continue to meet the targets in the *Air Quality Regulations*. In addition to the 2009 target, nitrogen oxide emission targets have been set in the regulations for NSPI for 2015 and 2020. The cap for 2015 is 19,228 tonnes and the cap for 2020 is 14,955 tonnes.

Mandate: *Environment Act* – Proactive Environmental Management.

MEASURE:

Number of environmental home assessments completed through the Environmental Home Assessment Program (EHAP) and number of septic repairs completed with funding from EHAP.

Outcome Description:

The purpose of the Environmental Home Assessment Program is to increase the rural homeowner knowledge of operating/maintaining their septic system, water well and heating oil tank. Studies have shown that up to 30% of on-site septic systems in Nova Scotia have malfunctioned and approximately 40% of private wells test positive for coliform bacteria. Through information delivered at rural public events and direct meetings and assessments at individual's homes, strategies are developed to improve water testing, improve maintenance of septic systems and reduce oil spills from heating oil tanks. Where septic systems have already failed and the homeowner doesn't have the financial means to make repairs, grants may be issued to assist in improvements.

What Does This Measure Tell Us?

Homeowner knowledge to protect their drinking water and treated sewage provides better health and environmental protection for all rural residents. Septic repair grants provide financial assistance for low-income families and allow seniors to stay in their homes while increasing compliance with provincial regulations and standards.

Where Are We Now?

The initial goal of this program was to provide individual assessments to 1000 home owners and repair 200 septic systems annually. Actual production is shown in table below:

Fiscal Year	Home Assessments	Grants
2006-2007	400	70
2007-2008	1000	200
2008-2009	1000	286
2009-2010	1000	237
2010-2011	625	127

In 2010-11, budget reductions caused the repair grants to be changed from a maximum cash grant of $3000 to one-third of the system repair costs, to a maximum of $3000. Since this often required individuals to provide more of their own funds for simple repairs or replacements, interest declined slightly with 625 assessments and 127 grants being delivered.

Where Do We Want To Be?

Significant budget reductions for 2011-12 will require revision of both the assessment and grant targets. We will be working with ENGO contractors to develop a more cost-efficient delivery model that will maximize results within resource constraints but will likely see a 40% reduction in the overall program.

Mandate: ***Environment Act*** **– Easier for business to comply with our laws and reduce costs to improve competitiveness and compliance.**

MEASURE:

Reduced time (percentage) spent by business on administrative requirements.

Outcome Description:

This was a measure created as part of the Better Regulations Initiative. NSE has continued to work on reducing time spent by businesses on administrative requirements.

What Does This Measure Tell Us?

By calculating the time it takes for businesses to comply with our policies, procedures and programs, we can get a better sense of the level of administrative burden involved in compliance with our laws.

Where Are We Now?

The overall reduction in the amount of time spent by business on administrative requirements from April 2009 to December 2010 is 16%. This was the last year of the four year reporting period under the Better Regulations Initiative.

Where Do We Want To Be?

NSE continues to work on reducing the time spent by business on administrative requirements. By reducing this time commitment, NSE will be making it easier for businesses to comply with our laws, while preserving environmental protections.

Mandate: ***Environment Act*** **– Efficient and Effective Program Delivery.**

MEASURE:

Average administrative time (days) to process applications for the approval of the installation of on-site sewage disposal systems.

Outcome Description:

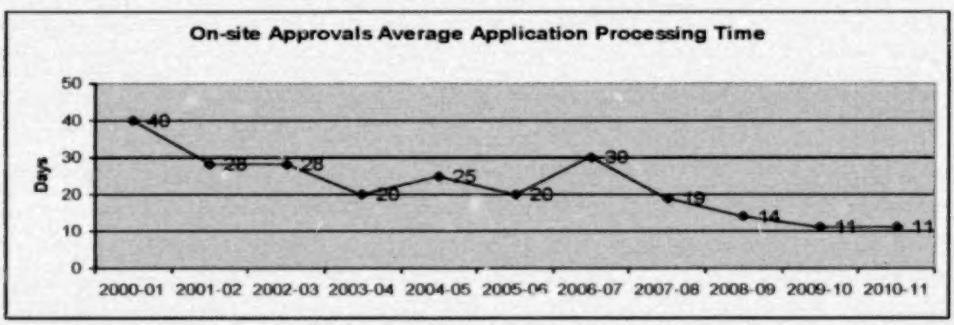
NSE continues to work on reducing the time spent on processing on-site applications. This approach is to ensure that NSE delivers an efficient and effective program to the public.

What Does This Measure Tell Us?

The Department recognizes that while environmental protection is a priority, it must also provide timely service to its clients. When a proposed building project requires an on-site sewage disposal system, municipal units require that an approval for the installation of the system is issued from the Department prior to granting a building permit. Reduced turnaround times in the processing of on-site sewage disposal system approvals benefit developers and home builders by minimizing delays in obtaining their building permit and in construction.

Where Are We Now?

In 2010-2011, the average administrative time to process applications for on-site sewage disposal systems was 11 days. This is a significant reduction from our 2000-2001 base-year measure of 40 days, and well within our legislated time requirement of 60 days.



Where Do We Want To Be?

The target is to maintain average turn around time to 20 calendar days or less, which is in line with government standards for the turnaround times for applications. The Department will continue to exceed this standard through ongoing process re-design and improvement.

Mandate: ***Wilderness Areas Protection Act and Special Places Protection Act*** **– Protected Natural Areas.**

MEASURE:

Total hectares of land protected through Nova Scotia Environment program options.

Outcome Description:

Our goal is to increase the hectares of land under various protection options.

What Does This Measure Tell Us?

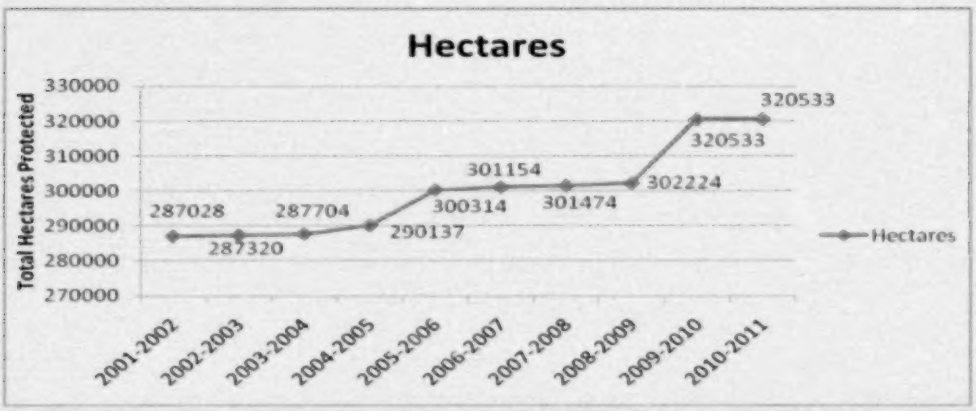
This measure tells us how much land is legally protected as wilderness areas under the *Wilderness Areas Protection Act* and as ecological sites (Nature Reserves), under the *Special Places Protection Act*.

Measuring the hectares of provincial land protected through department programs helps track the progress made in meeting provincial and national commitments to establish systems of protected areas. This measure also provides an indication of the state of biodiversity conservation in the province, as protected areas provide habitat for a wide range of species.

Where Are We Now?

As of 2010-2011, the Department has protected a total of 320,533 hectares throughout the province. This represents an increase of 33,505 hectares compared to the base year measure (2001-2002).

While there were no new lands protected under departmental program options in 2010-2011, several areas were announced as candidates for protection, and are now undergoing public consultation.



Where Do We Want To Be?

The *Environmental Goals and Sustainable Prosperity Act* has established the goal to legally protect 12% (663,360 hectares) of the total land mass of the Province by 2015. Lands contributing to this goal also include those protected under the *National Parks Act*, *Conservation Easements Act*, and *Canada Wildlife Act*, as well as conservation-oriented lands protected under the *Provincial Parks Act*, and lands held by non-government charitable land trusts. While this measure only applies to NSE, these other lands are also important for reaching the 12% goal.

To achieve the 12% land protection goal, the Department is working to:

- Complete the designation of areas that are currently proposed or intended for protection.
- Advance private land protection by partnering with land trusts and land owners.
- Acquire and protect important natural lands.
- Identify and review possible "12% lands" with high conservation values across Nova Scotia.
- Work closely with Nova Scotia Mi'kmaq and government partners.
- Consult with groups, organizations, and Nova Scotians on "12% lands" to guide the selection of proposed protected areas.
- Develop and consult on a draft protected areas plan, which will include proposed designations and area boundaries.
- Finalize a protected areas plan, and legally designate lands by 2015.

Mandate: ***Environment Act*** **– Clean Drinking Water.**

MEASURE:

Percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality, as stated in the *Guidelines for Canadian Drinking Water Quality*, at all times during the calendar year.

Outcome Description:

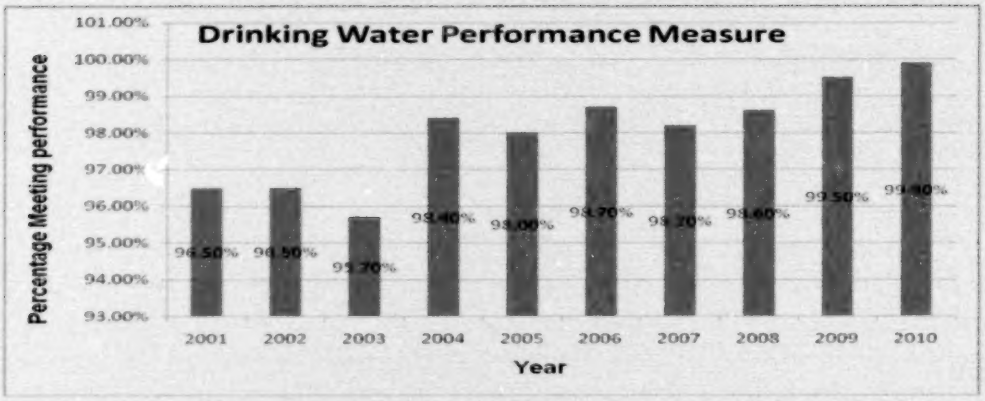
NSE is committed to sustainable management and protection of the environment. A desired outcome in meeting this commitment is clean and safe drinking water.

What Does This Measure Tell Us?

Approximately 60% of Nova Scotians obtain their drinking water from municipal water supplies. Health Canada, together with provincial health and environment ministries, has established the *Guidelines for Canadian Drinking Water Quality*. This document specifies the health-based criteria for a number of parameters, including maximum acceptable concentrations for total coliforms and E.coli bacteria. NSE tracks the proportion of people serviced by municipal water supplies who have access to drinking water meeting the health-based criteria for microbiological quality. This measure helps to provide an overall picture of access to quality drinking water. It also helps to gauge the effectiveness of NSE *Guidelines for Monitoring Public Drinking Water Supplies* and the *Water and Wastewater Facilities* and *Public Drinking Water Supplies Regulations*.

Where Are We Now?

NSE's boil water advisory database provides a tracking system for municipal water quality based on the health-based criteria for coliform bacteria (in the *Guidelines for Canadian Drinking Water Quality*). In 2010, 99.9% of the population served by municipal water supplies received water meeting the health-based criteria for microbiological quality at all times during the calendar year. This result shows an improvement over the results from 2009 which were 99.5%. The following graph shows the results since 2001.



Where Do We Want To Be?

Our on-going target is to maximize the percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality. NSE is contributing to this outcome by implementing Nova Scotia's Water Resource Management Strategy, supporting development of municipal water supply protection plans, and enforcing the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*, including NSE *Guidelines for Monitoring Public Water Supplies*.

Mandate: ***Environmental Goals and Sustainable Prosperity Act*** **(EGSPA) – Responsible Waste Management.**

MEASURE:

Annual municipal solid waste disposal rate per capita (Kg/person) compared with the regional and national disposal rates.

Outcome Description:

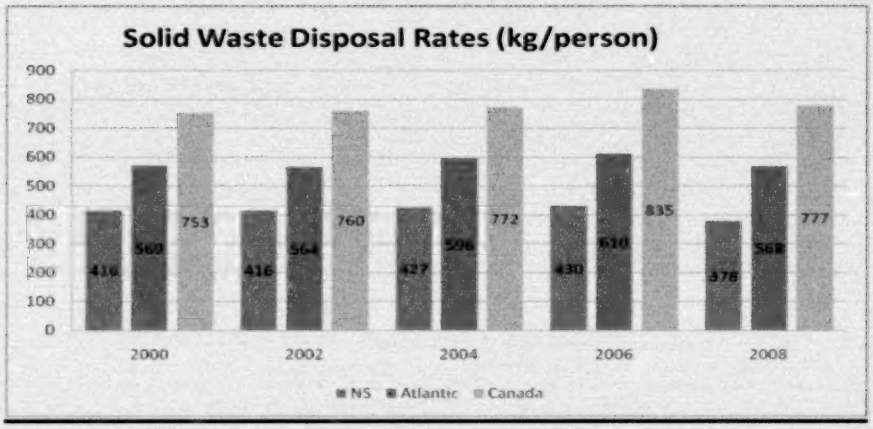
NSE is committed to sustainable management and protection of the environment and natural areas. Environmental management is most effective when responsibility is shared across all sectors and levels of society. The measure used for solid waste resource management gauges community participation in waste diversion and indicates Nova Scotia's success in keeping various materials out of landfills.

What Does This Measure Tell Us?

Communities share responsibility for environmental management through efforts like managing solid waste responsibly. Nova Scotia is working actively to ensure community participation in reuse, recycling, composting, and other waste management initiatives. The average amount of waste discarded by each person per year is an indicator of the level of participation in waste diversion programs. Low disposal rates suggest that more material is being diverted from the waste stream, either through reduction at source, reuse, recycling or composting. By comparing disposal rates in Nova Scotia with those of the Atlantic Region and Canada as a whole, we can assess Nova Scotia's performance, relative to the rest of Canada.

Where Are We Now?

Statistics Canada reports provincial solid waste disposal data every two years with a delay of approximately two years. As the graph indicates, Nova Scotians disposed of 378kg per person in 2008, which is less than half of the national average of 777 kg per person.



Source: Statistics Canada

Where Do We Want To Be?

We will continue to maintain a disposal rate well below the national disposal rate. The *Environmental Goals and Sustainable Prosperity Act* has committed to an even more ambitious disposal target of no more than 300 kg of waste per capita by 2015. The Department will support this goal through improved construction and demolition waste reduction/diversion, extended producer responsibility, research and development, continued public education, and compliance with the *Solid Waste-Resource Management Regulations*.

In 2011-2012, the performance measure will change to reporting on Nova Scotia's annual disposal rate. This measure is consistent to reporting on Nova Scotia's progress toward meeting the *Environmental Goals and Sustainable Prosperity Act* target of no more than 300 kilograms per person per year by 2015.

Previously the performance measure used was a comparison of Nova Scotia's disposal rate to other Atlantic Provinces and national averages. The source of the data was Statistics Canada. The data is only available every two years and there is a two year delay between year of data and publishing of data (2008 data published in 2010).

Nova Scotia collects and reports on disposal rate data annually and therefore this may be utilized to measure annual performance.

Mandate: ***Environmental Goals and Sustainable Prosperity Act*** **(EGSPA) – Holistic Assessment of Nova Scotia's Prosperity.**

MEASURE:

Holistic assessment of Nova Scotia's prosperity, integrating economic, social and environmental indicators.

Outcome Description:

Improve "the Province's economic performance to a level that is equal to or above the Canadian average by the year 2020" (EGSPA).

What Does This Measure Tell Us?

Nova Scotia's ranking in terms of GDP per capita can fluctuate for reasons beyond the province's control, which undermines the usefulness of it as a single measure. Therefore, in addition, the measures also assess the state of Nova Scotia's economy, people, and environment – a holistic assessment. The intent is to publish successively refined measures in the annual report on the EGSPA until 2020.

Where Are We Now?

Between 2006 and 2008, Nova Scotia performed better than the Canadian average in terms of growth of Gross Domestic Product (GDP), ranking fourth among Canadian provinces, with a growth rate that was only slightly less than Manitoba's. In 2010, however, because the national economy rebounded, the GDP for Canada is expected to once again grow at a faster rate compared to Nova Scotia.

Thirteen areas were examined relating to the state of Nova Scotia's economy, people and environment. Eight were found to range from neutral to unfavourable, and five ranged from neutral or favourable.

The Department of Finance is preparing this year's measures for the EGSPA annual report.

Where Do We Want To Be?

The Province's Goal is to achieve a GDP per capita that consistently equals or exceeds the Canadian average and to achieve the same for the state of the province's economy, people, and environment.

Changes in Measures

The Department of Finance measures Nova Scotia's progress towards this goal. The goal is reflected in EGSPA and continues to be relevant. However, it is not reflected in Nova Scotia Environment's 2011-2012 Statement of Mandate.

Mandate: ***Environmental Goals and Sustainable Prosperity Act*** **(EGSPA) – Greenhouse Gas Emissions (GHG).**

MEASURE:

Annual provincial GHGs, as measured by Environment Canada's National Inventory Report, compared to a 1990 baseline.

Outcome Description:

The province has a legislated target to reduce greenhouse gas emissions to 10% below 1990 levels by 2020, or 17.1 Mt. There is an interim target to be at least half-way to our 2020 target by 2015 (19.7 Mt), and a long-term target of 80% below current levels by 2050 (approx. 5 Mt). See table below for a visual description.

What Does This Measure Tell Us?

GHGs cause harmful climate change. The annual amount of GHGs emitted in Nova Scotia shows our contribution to this global problem.

Science tells us that global GHG emissions must peak on or before 2020, and decline by as much as 80% by 2050 to reduce the impacts of a changing climate (rising sea levels, changing precipitation patterns, more intense storms, etc.). Nova Scotia could be particularly vulnerable to these impacts as a coastal province that relies heavily on natural resources.

Where Are We Now?

Nova Scotia tracks its GHG emissions using the National Inventory Report (NIR) which is issued annually by Environment Canada. GHG emissions reported in the NIR are usually two years behind the current date, due to the complicated process of collecting and analyzing the data.

NSE directly tracks a subset of GHG emissions from the electricity sector through regulation. This data is important as this sector is responsible for almost half of all provincial GHG emissions. It is submitted annually by regulated bodies to NSE and is available within three months of the end of a calendar year.

Greenhouse Gas Emissions in Nova Scotia

Year	Electricity Sector (Mt)	All of Nova Scotia (Mt)	Notes
1990		19.000	Base year for legislated target (*Environmental Goals and Sustainable Prosperity Act*)
2004	10.777	23.300*	
2005	10.640	22.300*	
2006	9.745	20.700*	Anomaly: Shut down of Stora (now NewPage) - the provinces largest electricity consumer.
2007	10.145	21.400*	
2008	9.782	21.700*	
2009	9.363	21.000*	Preliminary numbers from NIR 2009 (yet to be released). First year of electricity sector regulation.
2010	9.251	*20.800***	Electricity sector figures are actual. **All of NS figures are estimated
2015	*8.700*	*19.700*	*Future targets*
2020	*7.500*	*17.100*	*Future targets*
2050		*Approx 5 Mt*	*Future targets*

*Based on new methodology, the National Inventory Report adjusted the 2004-2008 data for Nova Scotia.

Where Do We Want To Be?

Nova Scotia wants to transition its economy away from one that is energy intensive and carbon-based. The 2020 target and related actions are aggressive steps to start that transformation. Nova Scotia is on the right track, demonstrated by the downward trend, from 2004-2009, in GHG emissions illustrated in the above table. In 2020, Nova Scotia will be a provincial leader in clean energy and technology, driven by our early actions. We want to decouple economic growth from growing GHG emissions and be a contributor to the global effort to reduce GHGs by 80%.

Mandate: ***Environmental Goals and Sustainable Prosperity Act*** **(EGSPA) – Clean Air.**

MEASURE:

Ambient fine particulate matter ($PM_{2.5}$ = less than 2.5 microns), measured annually and averaged over three consecutive years.

Outcome Description:

Our target for this measure is to meet the Canada-wide Standard for particulate matter, which is 30 mg/m^3 or less of $PM_{2.5}$, within a 24 hour averaging time, by 2010. Achievement of the standard is based on the 98th percentile ambient measurement annually, averaged over three consecutive years.

What Does This Measure Tell Us?

The concentrations of $PM_{2.5}$ as measured at monitoring stations in the two census metropolitan areas in Nova Scotia (HRM and CBRM) are compared to the Canada-wide Standard for $PM_{2.5}$. Fine particulate matter is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment.

Where Are We Now?

For 2008-2010, the $PM_{2.5}$ measurement for Halifax Regional Municipality (HRM) is 16 mg/m^3, which is better than the Canada-wide Standard of 30 mg/m^3. For Cape Breton Regional Municipality (CBRM) there was insufficient data for this period, which means the measurement cannot be calculated.

Where Do We Want To Be?

Our target for this measure is to continue to meet the Canada-wide Standard for HRM and to have sufficient data to report for CBRM.

MEASURE:

Ambient ground level ozone, averaged over three years.

Outcome Description:

Our target for this measure is to meet the Canada-wide Standard for ozone, which is 65 parts per billion (ppb) or less of ground-level ozone, with an eight-hour averaging time, by 2010. Achievement of the standard is based on the fourth highest measurement annually, averaged over three consecutive years.

What Does This Measure Tell Us?

The concentrations of ozone as measured at monitoring stations in the two census metropolitan areas in Nova Scotia (HRM and CBRM) are compared to the Canada-wide Standard for ground-level ozone. Ozone is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment.

Where Are We Now?

For 2008-2010, the ozone measurement for both Halifax Regional Municipality (HRM) and Cape Breton Regional Municipality (CBRM) was 53 ppb, which is better than the Canada-wide Standard of 65 ppb.

Where Do We Want To Be?

Our target for this measure is to continue to meet the Canada-wide Standard.

Mandate: Environmental Goals and Sustainable Prosperity Act (EGSPA) – Wastewater Treatment Facilities.

MEASURE:

Percent of wastewater treatment facilities that provide at least primary treatment.

Outcome Description:

NSE is committed to sustainable management and protection of the environment. A desired outcome in meeting this commitment is the protection of the water we consume, use for recreational activities, and rely on to support our shellfish harvesting industry.

What Does This Measure Tell Us?

In Nova Scotia the discharge of untreated wastewater results in beaches closed to swimming and waters closed to shellfish harvesting and the aesthetics associated with raw discharges affect our ecotourism potential. Our streams, estuaries and coastal waters can be threatened by the substances found in inadequately treated wastewater and drinking water can become contaminated.

By ensuring that all facilities have at least primary treatment, we ensure a level of protection against the adverse effects of wastewater discharges.

Where Are We Now?

Approximately 55% of Nova Scotians dispose of their wastewater into a central sewer collection system (remaining 45% utilize individual on-site septic systems). This represents a total of 141 municipal central sewer collection systems in total. Currently 129 facilities (91%) have at least a primary level of treatment. This means that 93% of the population has at least primary treatment.

Year	2009	2010
Percentage	90	91

Where Do We Want To Be?

Our goal is to eliminate the discharge of untreated wastewater from central sewer collection systems. There are 12 facilities remaining in Nova Scotia with raw wastewater discharge. Three of these facilities are currently in the process of designing or constructing new treatment facilities.

On February 17, 2009, Nova Scotia endorsed a Canada-wide Strategy for Municipal Wastewater Effluent (MWWE). This strategy calls for a minimum of secondary treatment. Although this standard is more stringent than primary treatment, the timelines are longer than the 2017 date stated in EGSPA.

NSE is contributing to this outcome by developing an implementation plan for the MWWE Strategy. NSE will continue to consult with municipalities on the development of this plan.

Mandate: Environmental Goals and Sustainable Prosperity Act (EGSPA) – Redevelopment of Contaminated Sites.

MEASURE:

Status of regulatory approach and tools to stimulate redevelopment of contaminated lands.

Outcome Description:

New regulations are being developed along with a comprehensive framework outlining preventative measures, education initiatives and potential economic incentives.

What Does This Measure Tell Us?

New regulations for contaminated sites will provide greater certainty and clarity on the rules for cleanup. Properties impacted by releases of specific substances that exceed levels which may adversely affect human health or the environment need to be identified, assessed and managed in a manner that will reduce or eliminate any undue risks. There are many properties where contamination is known or suspected and those sites often remain idle or are under-utilized (e.g. - many are parking lots) due to the many barriers preventing redevelopment. Once in place, clear regulations and supporting tools will remove barriers and stimulate needed redevelopment.

Where Are We Now?

We are developing new rules and processes in a complex area to help better clean up contaminated land. These concepts have been developed in full consultation with stakeholders and have resulted in several discussion documents during 2010 and a draft regulation released for public consultation in early 2011. The final contaminated sites regulations are being drafted for consideration by Government during 2011. A framework developed will help determine further program initiatives.

Where Do We Want To Be?

Regulations will likely be finalized during 2011 and may have a phase-in period to permit development of supporting technical tools and for property owners, developers, environmental professionals and other stakeholders to become familiar with the revised system.

Mandate: ***Environmental Goals and Sustainable Prosperity Act*** **(EGSPA) – Wetlands Policy.**

MEASURE:

Status of policy preventing the net loss of wetlands.

Outcome Description:

Our goal is to establish a policy to prevent the net loss of wetlands.

What Does This Measure Tell Us?

A policy that prevents the net loss of wetlands will articulate Nova Scotia's approach to wetlands conservation and management. The policy will help to maintain the health of our watersheds, protect some of the most sensitive and ecologically significant lands in the province, and ensure that we continue to benefit from the valuable natural services provided by wetlands. The policy will also provide a clear context for addressing wetland impacts associated with development or other activities.

Where Are We Now?

A draft Nova Scotia Wetland Conservation Policy was developed and publicly consulted on from September to December 2009. The consultation period was extended to accommodate high levels of interest. The policy was revised after public/stakeholder feedback was considered. Nearly 700 people participated in the consultation process. Discussions with key sectors, including forestry, urban development, agriculture and environmental organizations continued throughout 2010. The Department is completing the policy and associated implementation tools.

Where Do We Want To Be?

The *Environmental Goals and Sustainable Prosperity Act* included a goal that the policy be established by the end of 2009. Our goal is to have the new policy in place as soon as possible to support effective implementation.

The policy will be supported by a number of tools, and others will be developed over time.

Mandate: Environmental Goals and Sustainable Prosperity Act (EGSPA) – Septage Compliance Objectives.

MEASURE:

Percent of septage treatment facilities that are operating in compliance with the guidelines.

Outcome Description:

At least 95% of septage treatment facilities are operating in compliance with the *Guidelines for Handling, Treatment, and Disposal of Septage* by 2011.

What Does This Measure Tell Us?

The Department is committed to ensuring septage lagoon owners meet the *Environmental Goals Prosperity Act* which states "septage treatment facilities will be operated in accordance with the Guidelines for Handling, Treatment and Disposal of Septage by the year 2011."

Where Are We Now?

Seventy percent (70%) of the septage treatment facilities are operating in accordance with the *Guidelines for Handling, Treatment, and Disposal of Septage*.

Where Do We Want To Be?

The target is having at least 95% of septage treatment facilities operating in accordance with the guidelines. The current strategy to reach this target was by accepting an action plan from the septage treatment facilities and issuing a short term approval to allow work to progress with the end goal of each of them operating in accordance with the guidelines. Compliance audits will be conducted on all facilities with short term approvals.